

WHAT IS CLAIMED IS:

1. A method of forming a soot preform on the outer  
5 periphery of a glass rod comprising:

forming a primary soot preform on an outer periphery  
of the glass rod by a primary burner; and

forming a secondary soot preform by a secondary  
burner on an outer periphery of the primary soot preform,

10 wherein a diameter of the primary soot preform is  
set in from twice to five times of a diameter of the  
glass rod, and a thickness of the secondary soot preform  
is set in from 1.5 times to seven times of a thickness  
of the primary soot preform.

15 2. The method of forming the soot preform according  
to claim 1, wherein the thickness of the secondary soot  
preform is set in two times to five times of the thickness  
of the primary soot preform.

20 3. The method of forming the soot preform according  
to claim 1, wherein a diameter of an opening end of the  
secondary burner is greater than a diameter of an opening  
end of the primary burner.

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4. The method of forming the soot preform according to claim 3, wherein the diameter of the opening end of the secondary burner is set in from two times to five times of that of the primary burner.

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5. The method of forming the soot preform according to claim 1, wherein an angle between the primary burner and the glass rod is ranged from 45 to 75 degree, and an angle between the secondary burner and the glass rod is ranged from 45 to 75 degree.

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6. The method of forming the soot preform according to claim 1, wherein a distance between a center point of expanse of the glass particles formed by the primary burner and a center point of expanse of the glass particles formed by the secondary burner is one third of or greater than the diameter of the soot preform formed by the primary and secondary burners.

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7. The method of forming the soot preform according to claim 1, further comprising:

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stopping a supply of a raw material gas to the primary burner at a termination end of the soot preform before a supply of the raw material gas to the secondary burner is stopped.

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